ABSTRACT OF THE DISCLOSURE

A method an apparatus for providing capability information to a shared controller. In one embodiment, a peripheral bus host controller may be shared by a plurality of peripheral devices coupled to a peripheral bus. The peripheral devices may include coder/decoder (codec) circuitry, and may be implemented using a riser card. The host controller may be configured to query the bus for peripheral devices by reading each address on the bus. During the querying process, the host controller may detect one or more peripheral devices coupled to the bus. Following the completion of the querying of the bus, the host controller may then begin reading configuration information from each of the detected devices. The host controller may employ one or more of several different techniques in order to read configuration information from the peripheral device. The configuration information at a minimum includes a device identifier, which may identify the vendor and the function of the device. Additional information needed to configure the device to communicate over the peripheral bus may also be obtained with a read of the device, or various lookup mechanisms, such as a lookup table or a tree-like data structure. After configuration information has been obtained for each device coupled to the bus, the host controller may dynamically configure each of the devices for communication over the bus, thereby allowing the flexibility to enumerate riser cards and add new functions through peripheral devices to the computer system in which the bus is implemented.